

from Mindanao (sex not given) "dull green;" while in a ♀ example from Dinagat they were "bright chrome-yellow."

The Sulu birds, both of which are adult males, have the head very dark green. The wing-coverts are edged with fulvous.

During my residence on Sulu Island I several times saw, but failed to obtain, a species of Hornbill with a white head and tail (? *Cranorrhinus leucocephalus*), and I am inclined to believe that there are two species of the Bucerotidæ in Sulu. With regard to Pigeons, I could hear nothing of the existence of *C. nicobarica*, but I obtained a large *Macropygia* unknown to me, which I unfortunately lost before any notes could be taken of it. Owls were apparently not uncommon, as also a species of *Caprimulgus*. Mr. Burbidge, in his notes on his collection from Sulu, speaks of the Fire-back Pheasant as being among the birds he "saw, but could not secure;" but I cannot help thinking that he must have been mistaken on this point.

2. On the Butterflies of Timorlaut. By TH. KIRSCH, Custos for Entomology at the Royal Zoological Museum of Dresden. (Communicated by Dr. A. B. MEYER, C.M.Z.S.)

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(Plate XIX.)

In the list of Butterflies from Timorlaut, published by Mr. Butler (Proc. Zool. Soc. 1883, p. 366), 21 species from that island group are enumerated. The collections of Mr. Riedel from Timorlaut, presented to the Royal Zoological Museum of Dresden, contain examples of four more species from there, two of which and a variety are undescribed.

1. ORNITHOPTERA RIEDELI, nov. sp. (Plate XIX. fig. 1 ♂, 2 ♀.)

Ornithopteræ darsio, Gray, valde affinis, sed distincte diversa forma et plaga alarum posteriorum. Annulo collari maculisque pectoralibus sanguineis sicut *O. darsii*; abdomine subtus segmentis postice flavo-atomatis.

♂. Alæ anticæ supra holosericeo-nigræ, margine interno latiore et externo brevioribus quam *O. darsii*, subtus venis trans cellulam discoidalem griseo-limbatis. Alæ posticæ margine exterioribus minus sinuato, angulis apice venæ medianæ ejusdemque ramorum minus prominentibus, potius plane rotundatis; plaga magna discoidali aureo-flava, certo situ leviter opalescente, extus 10-dentata, intus basin versus oblique truncata, venis in maculas septem divisas, macula antica trapezoidali, illa cellulæ discoidalis subtriangulari, lateribus curvatis, ceteris quinque apice emarginatis.

♀. Alæ atro-fuscæ, holosericeæ, lunulis anguste albo-ciliatis;

antica vena discocellulari late venisque secundariis usque ad ramum medianæ secundum (hoc solum dimidia externa) angustius albo-limbatis, subtus ut supra; posticæ medio plaga aureo-flava, venis tribus in maculas quatuor extus profunde emarginatas, intus prima et quarta leviter, sinuatis, secunda et tertiâ (illa versus basin magis attenuata quam tertiâ) obtusis, extus juxta quartam macula parva albo-farinosa, serie intramarginali macularum triangularium, interdum geminato-confluentium, flava, magis minusve atomatis nigris crebre conspersa, apice cellula discoidalis macula flava minima (punctiformi) aut nulla; subtus signaturis iisdem, sed serie externa a margine posteriore magis remota quam O. darsii et macula antica cellula costalis lineiformi.

This is a very distinct species, allied to *O. darsius*, Gray, and *O. criton*, Feld., but differing in the above particulars.

I have named this species in honour of Mr. Riedel, to whom the Dresden Museum is indebted for so many valuable additions.

2. DIADEMA ALIMENA, L., var. SALVINI, ♀. (Plate XIX. fig. 3.)

Allied to *D. alimena*, var. *velleda*, Cr., from Amboina, and to *D. forbesii*, Butler, from Timorlaut.

On the upper side the blue band, traversing both wings, very much resembling the typical form of *D. alimena*, but differing in the white markings being throughout larger, also the interstice between the submarginal spots and the inner row of points much smaller. The differences become more remarkable on the underside, viz. fore wing: the two posterior spots, situated between the median branches, are surrounded by blue atoms, and the blue band, crossing the median nervules, is not continuous, but here and there rather evanescent; hind wing: the dark interstice between the two white cross bands is much narrower, because the outer band nearly reaches the row of round bluish-white spots, at least at the anal half.

Length of body 25, of fore wing 40 millim.

3. ATHYMA GRACILIS, nov. sp. (Plate XIX. fig. 4.)

Male. Upper side smoky black, markings creamy-white; fore wing with two oblong connected spots, oblique from costal margin near the apex, and with four, forming a cross band, which reach the middle of the posterior margin (the three first spots subequally, the fourth narrow and somewhat longer), finally with an ill-defined marginal and submarginal spotted line.

Hind wing with broad white inner band, covering the middle third, and with a narrow outer band nearly evanescent.

Underside dusky ferruginous; markings the same as above, but the fore wing with a discoidal streak, straight, small and long, interrupted near the apex; the hind wing at base of costa and mediana white, the marginal lines more defined and all white.

Length of body 15, of fore wing 21 millim.

Allied to *A. venilia*, L., but more slender, the broad white inner band relatively much larger.

4. *ATTACUS ATLAS*, L. 1 ♂.

The vitreous spot of the fore wing with a very obtuse angle towards the costa; exterior angle acuminate, interior side convex, exterior side concave; the vitreous accessory spot small, lineal, along the middle hardly transparent, not reaching the outer cross band. The vitreous spot of the hind wing forms nearly a regular triangle, the posterior margin of which is rather sinuated.

There are now 25 species of Butterflies known from Timorlaut, no doubt only a small part of those there existing.

3. Notes on Peruvian Birds. By Prof. W. NATION, C.M.Z.S.

[Received February 27, 1885.]

1. *PETROCHELIDON RUFICOLLIS* (Peale).

Some twenty years ago an American engineer, engaged by the Peruvian Government to survey the Andean valleys and coasts of Peru for railway routes, showed me a letter from his friend the late Mr. John Cassin, requesting him to examine carefully the rocks and cliffs for a Swallow's nest. He informed me that he had searched for it for two or three years without success.

Many years after, when the subject of Mr. Cassin's letter had almost escaped my memory, being in the National Library of Lima, looking over some books which had just arrived, I found the two volumes of Birds of the U. S. Exploring Expedition, and saw the description of the Swallows obtained by Peale, near Callao, in, I think, 1835, and named by him *Hirundo ruficollis*. With this information I recommenced my search for it.

One would naturally suppose that if a Crag-Martin had been found in Western Peru, its breeding place would be found in one of the Andean valleys, where everything necessary for its economy abounds. Such at least was my impression; and from this error I lost many years in searching for it in places which it rarely or perhaps never visits.

At length, in 1877, tired and fatigued by a long ramble over the hot sandy hills of the neighbourhood of Lima, I came to some old ruins of a brick- or lime-works, so old that the ditches that had one supplied it with water had in many places disappeared; it must have been abandoned for a quarter of a century at least. Here, while sitting down inside the old kiln, I observed a bit of earth adhering to the wall; on removing it and blowing away carefully the loose particles of dust, I saw that it was composed of pellets, and that these pellets could not have been formed by any insect. I felt convinced that I had discovered the object of so many fatiguing journeys. Every rock, wall, and building near the ruins was carefully examined by me; and in the course of the day, about twelve miles from the city I fell in with a large colony of Cliff-Swallows.

On the following day I returned with a man and a ladder. The house which this bird had selected for its breeding place was a

